THAT WHICH IS CLAIMED:

1. A method for decreasing steady-state stomatal conductance in a plant comprising:

a) transforming a plant cell with a polynucleotide operably linked to a promoter that drives expression in a plant cell, wherein said polynucleotide encodes NADP-malic enzyme and wherein the expression of said polynucleotide decreases malate accumulation in the plant cell;

b) regenerating plants from the transformed cell; and

c) selecting for regenerated plants having a decrease in steady-state stomatal conductance or an increase in water-use efficiency.

2. The method of claim 1, wherein said polynucleotide is operably linked to a DNA sequence encoding a transit peptide.

3. The method of claim 1, wherein said plant is selected from the group consisting of maize, soybean, sorghum, sunflower, alfalfa, canola, safflower, tomato, wheat, rice, peanut, and cotton.

4. A method for increasing water-use efficiency in a plant comprising:

a) transforming a plant cell with a polynucleotide operably linked to a promoter that drives expression in a plant cell, wherein said polynucleotide encodes NADP-malic enzyme and wherein the expression of said polynucleotide decreases malate accumulation in the plant cell;

b) regenerating plants from the transformed cell; and

c) selecting for regenerated plants having a decrease in steady-state stomatal conductance or an increase in water-use efficiency.

5. The method of claim 4, wherein said polynucleotide is operably linked to a DNA sequence encoding a transit peptide.

6. The method of claim 4, wherein said plant is selected from the group consisting of maize, sorghum, soybean, sunflower, alfalfa, canola, safflower, tomato, wheat, rice, peanut, and cotton.

7. A transformed plant comprising an isolated polynucleotide stably integrated into the plant genome, wherein:

a) said polynucleotide is operably linked to a promoter that drives expression in a plant cell;

b) said polynucleotide encodes NADP-malic enzyme;

c) the expression of said polynucleotide decreases the level of malate in the plant cell; and

d) the plant has a decrease in steady-state stomatal conductance or an increase in water-use efficiency as compared to an untransformed plant.

8. The plant of claim 7, wherein the malate level is decreased by at least about 5%.

9. The plant of claim 7, wherein the malate level is decreased by at least about 10%.

10. The plant of claim 7, wherein the malate level is decreased from about 15% to about 65%.

11. The plant of claim 7, wherein stomatal conductance is decreased at least about 5%.

12. The plant of claim 7, wherein stomatal conductance is decreased at least about 10%.

13. The plant of claim 7, wherein stomatal conductance is decreased from about 15% to about 80%.

14. The plant of claim 7, wherein stomatal conductance is decreased from about 15% to about 65%.

15. The plant of claim 7, wherein water-use efficiency is increased by at least about 5%.

16. The plant of claim 7, wherein water-use efficiency is increased by at least about 10%.

17. The plant of claim 7, wherein water-use efficiency is increased in the range of from about 10% to about 20%.

18. The plant of claim 7, wherein said polynucleotide is operably linked to a DNA sequence encoding a transit peptide.

19. The plant of claim 7, wherein said plant is selected from the group consisting of maize, sorghum, soybean, sunflower, safflower, alfalfa, canola, tomato, wheat, rice, peanut, and cotton.